

**HB 3126 Advancement in Stem Cell Cures and Therapies Act**  
**Annual Stem Cell Research Report**  
**December 2015**



This report is submitted by the following:

Terry Cline, Ph.D.

Commissioner

Secretary of Health and Human Services

Toni Frioux, APRN-CNP

Deputy Commissioner, Prevention & Preparedness Services

Sharon Vaz, MSGC, BSN, RN

Director, Screening and Special Services

State Genetics Coordinator

# HB 3126 Advancement in Stem Cell Cures and Therapies Act

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## Introduction

HB 3126 Advancement in Stem Cell Cures and Therapies Act was enacted into law in November 2008. This legislation was authored in the House by Representatives Enns, Cox, Dank, Faught, McAffrey, McDaniel (Jeannie), Renegar, Rousselot, Sears, Steele, Shelton and in the Senate by Senator Crain.

This bill was enacted to encourage stem cell research in the State of Oklahoma because stem cells are recognized to have great potential for treatment of life-threatening and debilitating diseases.

The bill defines “human embryo” as a “living organism of the species Homo sapiens at the earliest stage of development, including the single-cell stage that is not located in the body of a woman.” It also provides for research on human tissue regeneration and human disease using adult stem cells and stem cells obtained from umbilical cord blood and amniotic fluid to be conducted in the state provided that the research is performed safely and ethically, using only embryonic stem cell lines created prior to August 1, 2001, and in accordance with federal law as it existed on November 1, 2007. The bill states when research is performed in accordance with the Advancement in Stem Cell Cures and Therapies Act no person or governmental body shall “restrict public funds designated for the stem cell research or obstruct or provide disincentives for the stem cell research.” In addition, the State Department of Health shall establish a reporting system that collects information regarding all activities carried out.

The State Department of Health established rules in March 2009 to assist organizations engaged in stem cell research with reporting requirements. The State Department of Health provides an annual report to the Governor, President Pro Tempore of the Senate and Speaker of the House. The University of Oklahoma Health Sciences Center is currently the only institution in the state of Oklahoma engaging in stem cell research.

# Stem Cell Research Report 2015

Provider

Project

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Board of Regents  
of the University  
of Oklahoma  
Health Sciences  
Center

A Phase III Randomized, Multicenter Study Comparing Granulocyte Colony-Stimulating Factor (G-CSF) Mobilized Peripheral Blood Stem Cells with Marrow Transplantation from Human Leukocyte Antigen Compatible Unrelated Donors

Pancreatic Stem Cells and Cancer

Bioengineering of the Human Umbilical Vein for Tissue Engineering Nerves and Tendons

Influence of Maternal Diabetes Mellitus on Umbilical Endothelial Cell Micro-Ribonucleic Acid Expression

Metabolic Alterations in the Human Umbilical Vein Endothelial Cells from Offspring of Diabetic and Pre-eclamptic Pregnancies

Development of Human T Cells In Vitro

In Vitro Characterization of Healthy and Diseased Bladder and Ureteral Tissues

Comparison of Conditioning Regimens Using Intravenous Busulfan Versus Total Body Irradiation for Allogeneic Hematopoietic Stem Cell Transplantation in Hematologic Malignancies

A Randomized Trial of Levofloxacin to Prevent Bacteremia in Children Being Treated for Acute Leukemia (AL) or Undergoing Hematopoietic Stem Cell Transplant (HSCT)

A Trial of Tandem Autologous Stem Cell Transplants +/- Post Second Autologous Transplant Maintenance Therapy Versus Single Autologous Stem Cell Transplant Followed by Matched Sibling Non-Myeloablative Allogeneic Stem Cell Transplant for Patients with Multiple Myeloma

Establishment of Adenoid Cystic Carcinoma Stem Cell Lines: Role of c-MYB and Wnt Pathway in Cell Line Maintenance

A Research Database for Hematopoietic Stem Cell Transplantation and Marrow Toxic Injuries

Research Sample Repository for Allogeneic Hematopoietic Stem Cell Transplantation and Marrow Toxic Injuries

Transplantation of Umbilical Cord Stem and Progenitor Cells

Provider	Project
	Killer Immunoglobulin-like Receptor (KIR) Incompatible Unrelated Donor Hematopoietic Stem Cell Transplantation (SCT) for Acute Myelogenous Leukemia (AML) with Monosomy 7, -5/5q-, High FLT3 Internal Tandem Duplication Allelic Ratio (High FLT3-ITD AR), or Refractory and Relapsed AML in Children: A Children's Oncology Group (COG) Study
	A Phase III Randomized Trial for the Treatment of Newly Diagnosed Supratentorial PNET and High Risk Medulloblastoma in Children <36 Months Old with Intensive Induction Chemotherapy with Methotrexate Followed by Consolidation with Stem Cell Rescue Versus Same Therapy without Methotrexate
	Phase III Randomized Study of Chimeric Antibody 14.18 (Ch14.18) in High Risk Neuroblastoma Following Myeloablative Therapy and Autologous Stem Cell Rescue
	Cancer Stem Cell Markers in Hepatocellular Carcinoma
	Expression Patterns of Stem Cell Marker Doublecortin and CaM Kinase-like-1 (DCAMKL-1) in Human Pancreatic Adenocarcinoma
	A Multicenter Study of Hematopoietic Stem Cell Donor Safety and Quality of Life
	Comparison of MicroRNA Results Between Umbilical Cord Endothelial Cells and Serum in Children
	Single Institution Experience with Immune Reconstitution in Patients Post-Allogeneic Hematopoietic Stem Cell Transplant
	Securing Umbilical Venous Lines: Randomized, Controlled Study of Methods to Minimize Line Migration and Dermal Complications
	Securing Umbilical Venous Catheters: Retrospective Chart Review of Rates of Line Migration and Dermal Complications
	Inter-Alpha Inhibitor Proteins Reduce the Toxic Effects of Histones In Vitro
	Vitamin D Deficiency and Graft-Versus-Host Disease (GVHD) in the Hematopoietic Stem Cell Transplant (HSCT) Population
	If the Male Partner has Low Strict Kruger Morphology, Should the Couple Still Undergo Intrauterine Insemination Versus Move on to In Vitro Fertilization?
	Effect of Body Mass Index on Response to Therapy in Multiple Myeloma Patients Receiving Autologous Stem Cell Transplant with Melphalan-based Conditioning Regimen
	A Randomized Double-Blind Trial of Topical Caphosol to Prevent Oral Mucositis in Children Undergoing Hematopoietic Stem Cell Transplantation

Provider	Project
	A Randomized, Prospective, Double-Blind, Placebo-Controlled, Phase 3 Study of US-ATG-F Prophylaxis as a Supplement to Standard of Care Prophylaxis to Prevent Moderate to Severe Chronic Graft Versus Host Disease (GVHD) in Adult Acute Myeloid Leukemia, Acute Lymphoid Leukemia, and Myelodysplastic Syndrome Patients after Allogeneic Stem Cell Transplantation from Unrelated Donors
	Predicting CD34+ Collection in Autologous Hematopoietic Stem Cell Transplantation (HSCT) with Pre-Collection CD34+ Counts With or Without the Use of Plerixafor
	A Multi-Center, Phase III, Randomized Trial of Reduced Intensity Conditioning (RIC) and Transplantation of Double Unrelated Umbilical Cord Blood (dUCB) versus HLA-Haploidentical Related Bone Marrow (Haplo) for Patients with Hematologic Malignancies
	Multicenter Safety Study of Unlicensed, Investigational Cryopreserved Cord Blood Units (CBUs) Manufactured by the National Cord Blood Program (NCBP) and Provided for Unrelated Hematopoietic Stem Cell Transplantation of Pediatric and Adult Patients
	Targeting the Cancer Stem Cells in Oral Cancer
	The Gastrointestinal Stem Cell Response to Injury
	Doublecortin-Like Kinase-1 as a Marker and Indicator of Treatment Response for Intestinal Stem Cells in Barrett's Esophagus and Progression to Esophageal Adenocarcinoma
	Evaluation of the Intestinal Epithelial Stem Cell Population in Pediatric Intestinal Polyps
	Expression Patterns of Stem Cell Marker Doublecortin and CaM Kinase Like-1 (DCAMKL-1) in Colorectal Polyps
	Assessment of Allogeneic Hematopoietic Stem Cell Transplantation in Medicare Beneficiaries with Myelodysplastic Syndrome and Related Disorders
	Documentation of Novel Keratoconus Markers: In Vitro and In Vivo